

KYZEN E5631 – Stencil Cleaning - Batch Spray-In-Air

Overview:

A Global contract manufacturer was searching for an alternative cleaning chemistry to maintain or improve their current cleaning process. Over the course of several years, they have tested and implemented several different chemistries. They have experienced stencil incompatibility problems, poor production cleaning performance and/or cost stresses.

Situation:

Due to specific customer demands, several different types of No Clean, Lead-free solder pastes are used; some cleaning easier than others. Complete solder paste removal from both the stencil surface and the apertures is required for each stencil where paste is left on the stencil for up to 4 hours, using a DCT InJet 3179 BigBoard spray-in-air batch machine.



Chemistry:

KYZEN E5631 was chosen for its ability to clean all types of solder pastes at low temperatures, rinse freely and is compatible with materials of construction on stencils as well as common stencil cleaning systems.

Trial Parameters/Process Flow:

Cleaning Process Parameters	
Temperature:	Room temperature
Cleaning Agent:	KYZEN® E5631
Concentration:	15%
Technology:	Spray-in-Air
Time:	3 Minutes
Drip:	4 Minutes

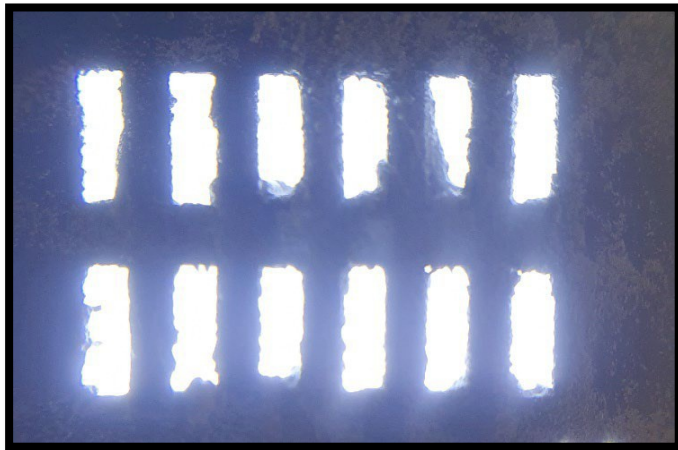
Rinsing Process Parameters 2nd Phase	
Temperature:	25°C / 77°F
Cleaning Agent:	DI Water
Technology:	Spray-in-Air
Time:	3 Minutes
Drip:	4 Minutes

Drying Process Parameters	
Temperature:	45°C / 113°F
Time:	8 ½ Minutes
Technology:	Air knife / Hot Air

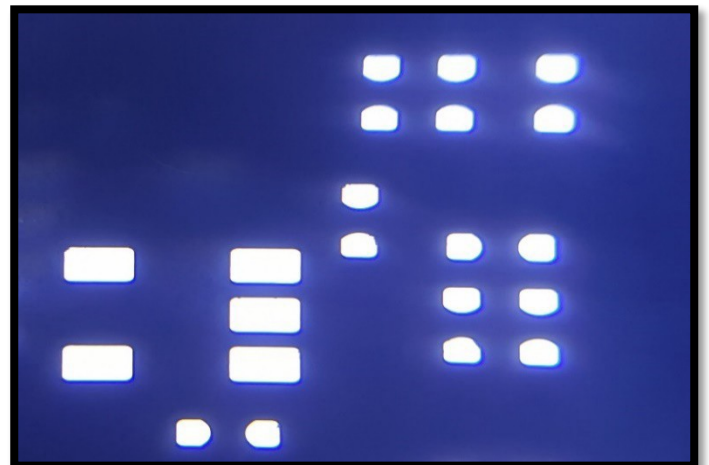
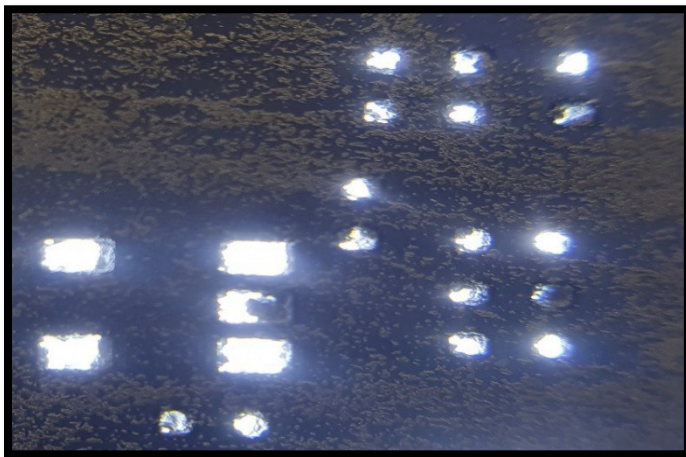
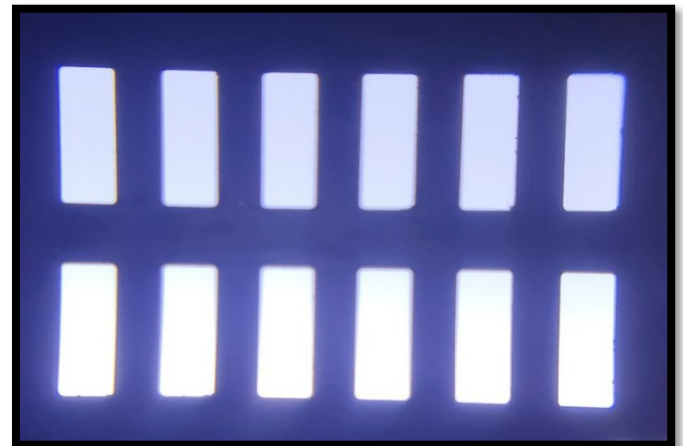
Results and Conclusions:

The results of both tests were conclusive for several reasons. 1) KYZEN E5631 easily removed all solder paste residue from the stencil surface while showing no negative effects to the stencil. 2) The fine pitch apertures were 100% clean and no solder spheres were noted. 3) There were no issues with long-term stencil compatibility. 4) The low operating concentration without decreasing effectiveness or bath life at ambient temperature provided the cost savings desired by the customer.

BEFORE



AFTER



More information on [KYZEN E5631](#) is available on our website or by contacting your KYZEN Sales Representative directly.

www.kyzen.com